

## ELECTROCHEMICAL SCREENING SYSTEM

### ABSTRACT OF THE DISCLOSURE

Devices and methods for evaluating an electrochemical reaction are  
5 disclosed. A device includes an electrochemical cell having a cavity for  
containing a liquidus electrolyte, a first working electrode having at least one  
electrolytic surface at least partially within the cavity, and a second counter  
electrode having at least one electrolytic surface at least partially within the  
cavity. The first working electrode includes a body and an insert supported by the  
10 body. The electrolytic surface of the working electrode is formed on or integral  
with the insert. The insert and body are each formed from a high-temperature  
material which allows for preparation or processing of the electrolytic surface at a  
temperature of at least 300°C. The device further includes a drive system  
detachably coupled to the first working electrode or a portion thereof for effecting  
15 relative motion between the electrolytic surface of the working electrode and a  
bulk portion of the liquidus electrolyte.